

## REMARKS

The Claims in the application are 1, 3, 4, 6-10, 12-17 and 20-27. Claim 8 has been amended to depend from Claim 1 instead of cancelled claim 2 and Claim 17 has been amended so as to replace the transitional language "consisting" with "consisting essentially of." Claims 24-27 have been added by this amendment. Support for the amendments and new claims 24-27 can be found throughout the specification and in particular at pages 3-6 and the Examples. Claim 26 contains all of the limitations of Claims 1 using the transitional language of "consisting", thereby precludes the inclusion of foam and overcomes the cited prior art as stated in the Interview Summary dated August 25, 2006. No new matter has been added.

Favorable reconsideration of the application as amended is respectfully requested.

In the Office Action mailed July 12, 2006, Claim 8 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention since Claim 8 depends from cancelled Claim 2. As stated above, Claim 8 has been amended to depend from Claim 1. No new matter has been added and the Applicants respectfully request that the rejection of Claim 8 under 35 U.S.C. §112 be reconsidered and withdrawn.

As stated above, Claim 17 has been amended to recite "consisting essentially of" instead of "consisting." As the Examiner correctly stated in the Office Action mailed July 12, 2006, the transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claims. *In re Herz*, 537 F.2d 549, 551-52, 190 U.S.P.Q. 461, 463

(CCPA 1976). As also correctly stated by the Examiner, the Applicants have the burden of showing that the introduction of additional steps or components would materially change the characteristics of the Applicants' invention. (*In re De Lajarte*, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See also *Ex parte Hoffman*, 12 USPQ2d 1061, 1063-64 (Bd. Pat. App. & Inter. 1989).

Here, unlike, *In re De Lajarte* and *Ex parte Hoffman*, the addition of foam in the electromagnetic wave shielding material of the present invention would in affect eliminate one of the principal objectives of the invention, namely to provide an electromagnetic wave shielding material having superior shielding properties which produces little to no cutting debris when cut. Therefore, as further discussed below, including foam in the wave shielding material of the present invention would materially affect the basic and novel aspect of the invention and wave shielding materials including foam would not fall within the scope of the Claims. In addition, as further discussed below, Claims specifically excluding foam (newly added Claims 25 and 26) from the wave shielding material of the present invention are fully supported by the specification since throughout the specification the problems of including foam in wave shielding material are discussed and comparative Examples showing the benefits between wave shielding materials free of foam and wave shielding material including foam are discussed.

As discussed in the background section of the present application, the present invention provides examples of existing wave shielding gaskets which are produced by slicing elastic foam blocks such as, polyurethane sponges, to a predetermined thickness using a slicer and cutting each slice into pieces that can be connected to each other to obtain a long, strap-like structure which can be held together using an adhesive agent

layer. This however, as stated in the "Objects of the Invention" section of the application presents many problems, such as difficulty in slicing the foam-strap like structure extremely thin and producing cutting debris upon cutting. Using thicker slices and compressing the foam to a thinner thickness so as to overcome this problem presents the additional problem of permanent strain.

As result, a method used in the prior art to overcome these problems called "the continuous foaming method", which fills the hollow portion of woven cloth thereby producing a gasket is used. However, dimension accuracy using this method is poor because the foaming product continues to expand even after the shielding material is pulled out of the mold. (See p. 4 of the present application).

Using conductive woven/unwoven cloth which is made of only conductive material produces a thin gasket material but exhibits poor cushioning properties. (See p. 5 application)

To overcome these problems, conductive material produced by forming a metal skeleton and urethane sponge-like elastic foam structure is suggested in the prior art. However, as stated at page 6 of the specification, gaskets having "a base material composed of urethane sponge or three dimensionally knitted structure is likely to generate conductive cutting debris. If such cutting debris drops to the inside of the electronic device, a significant influence including short circuit may be caused."

In the "Detailed Description of the Invention" section of the application, the present invention is described as " a three-dimensional (woven-) knitted base material which includes an upper ground structure, a lower ground structure and connection thread. Examples of the fiber material which constitutes the fibrous structure cutting base material

include the conventionally known base material such as synthetic fiber and natural fiber. Among these examples, polyester fiber such as polyethylene terephthalate. Further down in this section it is stated that the preferably heat-fusing thread is used as the fiber material which constitutes the fibrous structure and is use as a heat-fusing thread at the portions which constitutes the upper ground structure and the lower ground structure is particularly preferable, because the low-melting point thread is fused at the time of processing and is attached with each other, whereby the amount of cutting debris generated at the time of cutting can be reduced. (See application p.11, 1<sup>st</sup> ¶ )

As can be seen from the background of the invention section of the application which states the problem with wave shielding material containing foam and cutting debris to the Detailed Description of the Invention section which describes the fibrous material used to overcome the problems associated with foam containing wave shielding material , it is clear that the Applicants intended to exclude foam from the present invention.

As further evidence that including foam in the wave shielding material of the present invention would materially affect the inventive aspect of the material we look to the Examples and comparative Examples described in the application. Wave shielding material representative of the present invention are provided in the Examples and do not include foam. Comparative Examples was processed in a manner similar to that of Example 2, and but includes foam. The Examples and the Comparative Examples where compared and the results provided in Table 1. In Table 1 of the present invention, both of the comparative Examples which contain foam, **produce moderate to significant amounts of cutting debris** when cut wherein the foam free wave shielding materials of the present invention in Examples 1-3 produce hardly no cutting debris upon cutting.

In summary, the present application discusses the problems of production of cutting debris with wave shielding materials containing foam, describes one of the objectives of the invention as producing a wave shielding material designed to overcome this problem, describes wave shielding material in the Examples that is free of foam and compares this in the Comparative Examples with wave shielding material that includes foam and recites the inferior characteristics, including increased cutting debris, associated with the foam containing wave shielding material of the Comparative Examples. This, taken together, clearly indicates that the applicants were in possession of a wave shielding material free of foam at the time of filing thereby supporting the new claims presented and that including foam in the wave shielding material would materially affect the inventive aspects of the invention.

In the Office Action mailed July 12, 2006, Claims 1, 3-4, 6-10 and 20-23 have been rejected under 35 U.S.C. § 102(a) as being anticipated by SHIODA et al. (WO 98/096247) published February 12, 1998, US 6,569,789 B1 applied as an English equivalent. Claims 1, 3-4, 6-10 and 21-23 have also been rejected under 35 U.S.C. § 102(e) as being anticipated by SHIODA et al. (US 6,569,789) which has an effective filing date of Feb. 3, 1999.

As is well settled, anticipation requires "identity of invention," *Glaverbel Societe Anonymie v. Northlake Mktg. & Supply*, 33 USPQ 2d 1496, 33 USPQ 2d 1496, 1498 (Fed. Cir. 1995). Each and every element recited in a claim must be found in a single prior art reference and arranged as in the claim. *In re Marshall*, 198 USPQ 344, 346 (CCPA 1978); *Lindenmann Maschinenfabrik GmbH v. American Hoist and Denich Co.* 221 USPQ 481, 485 (Fed. Cir. 1984). There must be no differences between what is claimed and what is

disclosed in the applied reference. *In Re Kalm*, 154 USPQ 10, 12 (CCPA 1967), *Scripps v. Genentech Inc.*, 18 USPQ 2d 1001, 1010 (Fed. Cir. 1991).

SHIODA describes the use of a foam layer in a conductive material suitable as a gasket material for shielding the electromagnetic wave. In particular, SHIODA describes a composite material composed of a synthetic fiber-structured sheet and a porous synthetic resin sheet integrally bonded to each other and is plated with metal. The fiber-structured sheets include knit cloths and organic fiber. The porous synthetic resin sheet described in SHIODA is a soft foamed sheet of three-dimensional network structure. SHIODA does not teach a resin sheet free of the soft foamed sheet of three-dimensional network structure.

Claim 1 and Claim 17 as amended exclude the use of foam as a cushioning material by virtue of the fact that both claims use the transitional phrase "consisting essentially of." As discussed above, throughout the application, including the Examples and the Claims, the present application describes the electromagnetic wave shielding material of the invention as being composed of a fibrous structure base material, such as a three dimensional knitted base material, and a conductive metal layer. The application excludes the inclusion of a foam layer in the invention, since inclusion of foam would increase cutting debris which is not favored. As a result, the electromagnetic wave shielding material of the present invention exhibits good shielding properties, with metal separation being hardly observed and debris being only slightly generated when cut. In the Comparative Examples of the present application, it is shown that structures containing a foam layer, as in SHIODA, exhibit a moderate to significant debris generation upon cutting and a slight separation of the metal. In stark contrast, the Examples that practice the invention

(containing no foam) produce almost no debris when cut. This further indicates the novel structure of the present invention in part depends on NOT containing foam. (See Table 1 of the present application).

In view of the foregoing, including a foam layer in the claimed electromagnetic wave shielding material would materially affect the basic and novel characteristics of the claimed electromagnetic wave shielding material and therefore is excluded from the claim by virtue of the "consisting essentially of" transitional language in the claims as amended. Accordingly, the rejection of claims 1, 3, 4 and 6-10, 12-16 and 20 under 35 U.S.C. § 102(a) as being anticipated by SHIODA et al. (WO 98/096247) and under 35 U.S.C. § 102(e) as being anticipated by US 6,569,789 B1 should be reconsidered and withdrawn. It is noted that, claims 2, 11, and 19 have been cancelled and the rejection for these claims are now moot.

In the Office Action, claim 20 have been rejected under 35 U.S.C. 102(a) SHIODA (WO 98/096247) and in the alternative over 103(a). Claim 20 depends from Claim 1 and therefore includes all of the limitations of claim 1. Therefore, for the reasons stated above for claim 1, the rejection of claim 20 should be reconsidered and withdrawn.

Also in the Office Action, claims 1, 3-4, 7-10 , and 12-17 have been rejected under 35 U.S.C. §103(a) as being obvious over ROELL (US 5,589,240) in view of EBNETH (US 4, 201, 825) and in further view of EP 0748889 A2.

ROELL describes a textile spacer material, that does not contain a metal layer. In particular, ROELL describes a textile spacer material having a pile thread structure which can be used to achieve a textile material that is stated to have high absorbency, is pleasant to the skin and lists one of the preferred uses of the spacer material as being used in the

area of incontinence or as a bed liner to prevent be sores in hospitals. (Col.4, para. 2). As stated above, no metal layer is taught or suggested. Instead, the Examiner relies on EBNETH to fill this factual gap and states since “both references are directed to knitted fabrics, the purpose disclosed by EBNETH would have been recognized in the pertinent art of ROELL.” (See Office Action p. 11, para.2). The Applicants respectfully disagree.

First of all, “recognizing a purpose” does not release the Examiner of his burden of demonstrating where in ROELL there is a suggestion to add a metal layer to the knitted structure, and why one would have done so. The kind of suggestion which would have “*strongly motivated*” one to make the electromagnetic wave shielding material of the present invention. *Ex parte Graselli*, 231 USPQ 393,394 (Bd. App. 1983). The type of motivation which would have “*impelled*” one to do so (*Ex parte Levengood*, 28 USPQ2d 1300, 1302 (BPAI 1992), and the type of suggestion that an electromagnetic wave shielding material having the limitations required by the claims “*should*” be made. *Ex parte Markowitz*, 143 USPQ 303, 305 (Bd. App. 1964). But that, too, is what a conclusion of obviousness requires. See *Levengood*, 28 USPQ2d at 1302. The Examiner has not addressed these elements, but without these elements, obviousness cannot be established.

In addition, the Applicants fail to see how and why one skilled in the art would combine the ROELL reference that teaches an absorbent/soft textile material used in the area of incontinence or as a bed liner to prevent bed sores in hospitals as a preferred embodiment and coat it with a metal layer to use it as an electromagnetic wave shielding material. Therefore, the suggestion and motivation to coat the absorbent/soft textile material of SHIODA with a metal layer is simply not there and would destroy the inventive



properties of the textile as provided in SHIODA. For the reasons stated above, the rejection under 35 U.S.C. 103 should be reconsidered and withdrawn.

Moreover, with regards to the heat-fusing thread of the present invention, the Examiner states that ROELL teaches that "the mechanical and physiological properties of the textile spacer material can be varied depending on the selection of thread material used." As an example, the Examiner sites to a temperature sensitive material that changes size as it is subjected to an increase in temperature. In other words, what the ROELL shows and is being relied on by the Examiner for teaching the heat-fusing thread of the present invention, is really a heat-shrinkable polymeric structure that is used to change the physical size of the textile, never to bond the threads.

In stark contrast, the heat-fusing thread of the claimed invention is dispersed throughout at least a portion of the three dimensionally knitted base material and is fuse-bonded to the three dimensionally knitted base material in at least one contacting point. This bonding pattern is not taught or suggested by ROELL and this factual gap is not filled by any of the secondary references. For this further reason, the rejection over ROELL should be reconsidered and withdrawn.

Still further, ROELL describes structures having pile thread continuously threaded throughout the spacer material. In other words, at no point in the space between the first and second covers of the spacer material taught in the ROELL is there an area "entirely void" of pile thread. (See figures 1-9).

In stark contrast, claims 1 and 17 of the present invention specifically require that "the portions (3) extending between the upper and lower ground structures (1,1) are entirely void of connecting thread (2) from both ground structures." The fact that the

portions (3) are “entirely void of connecting thread (2) “ is neither shown or suggested in ROELL. However, this limitation is absolutely required in order to realize the novel features of the present invention, namely minimizing cutting debris produced when the electromagnetic wave shielding material is cut in these regions. Cutting the ROELL structures would sever the pile thread and cause significant debris. This factual flaw is not rectified by the addition of either EBNETH or EP 0748889 A2 and for this further reason the rejection of claims under 35 U.S.C. §103 should be reconsidered and withdrawn.

In view of the foregoing reasons, the rejection of claims 1, 3-4, 7-10 , and 12-17 under 35 U.S.C. §103(a) as being obvious over ROELL (US 5,589,240) in view of EBNETH (US 4, 201, 825) and in further view of EP 0748889 A2 should be reconsidered and withdrawn.

In the Office Action mailed July 12, 2006, Claim 6, has been rejected under 35 U.S.C. §103(a) as being obvious over ROELL (US 5,589,240) in view of EBNETH (US 4, 201, 825) and in further view of ENG et al (US 5,532,052). In making the rejection the Examiner has acknowledged that ROELL and EBNETH do not explicitly use a Raschel structure but ENG et al discloses a camouflage material having radar screening properties comprised of a warp-knitted fabric, so-called Raschel fabric, and when combined a person having ordinary skill in the art would modify the electromagnetic wave shield of ROELL and EBNETH so as to provide a Raschel structure as claimed. As stated above, ROELL and EBNETH fail to teach or suggest a wave shielding material having “portions (3) extending between the upper and lower ground structures (1,1) are entirely void of connecting thread (2) from both ground structures.” so as to reduce the amount of cutting debris produced and ENG et al. fails to fill this factual gap. Therefore, the Applicants respectfully submit

that the rejection of Claim 6 must be reconsidered and withdrawn.

Claim 6 has also been rejected under U.S.C. §103(a) as being obvious over ROELL (US 5,589,240) in view of SHIODA et al. (WO 98/096247). For the reasons stated above, ROELL does not teach or suggest a wave shielding material having “portions (3) extending between the upper and lower ground structures (1,1) are entirely void of connecting thread (2) from both ground structures.” so as to reduce the amount of cutting debris produced and SHIODA does not correct this factual defect. In fact, SHIODA introduces foam into the wave shielding material which would materially change the basic and novel characteristics as discussed above. Therefore, one skilled in the art would not even combine SHIODA with ROELL since SHIODA teaches a wave shielding material containing foam and ROELL is free of foam. For this additional reason the Applicants respectfully request that the rejection of Claim 6 be reconsidered and withdrawn.

Accordingly, in view of the forgoing amendment, accompanying remarks, and Office Action, it is respectfully submitted all claims pending herein are in condition for allowance. Please contact the undersigned attorney should there be any questions.

This response is accompanied by Request for Reconsideration and a check in the amount of \$900.00 in payment of the fee required for 4 extra independent claims and 2 extra dependent claims. Accordingly, this response is filed timely upon mailing with an executed certificate of mailing on or before October 12, 2006. 37 C.F.R § 1.8, 1.17 and 1.136.

It is not believed that this submission occasions any additional fees, however, should there be any fees, please charge the same to Deposit Account No. 04-1121. A duplicate copy of this paper is enclosed.

Early favorable action is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Leo G. Lenna', with a long horizontal flourish extending to the right.

Leo G. Lenna, Esq.  
Reg. No.42,796  
Attorney for Applicant(s)

DILWORTH & BARRÈSE, LLP.  
333 Earle Ovington Blvd.  
Uniondale, NY 11553  
(516) 228-8484  
FAX (516) 228-8516